

EIGHT NEW SPECIES OF REARED ICHNEUMON-FLIES, WITH NOTES ON SOME OTHER SPECIES.

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The eight new species herein described were all reared by agents of the Bureau of Entomology, and the majority of them are represented by considerable series. The notes on previously described species are included in the hope that they will add something to the definition of the species. They are based on newly reared material.

Genus **MICROCRYPTUS** Thomson.

(CRYPTUS) **MICROCRYPTUS** *OSCULATUS* (Provancher).

A considerable series of what appears to be this species has been reared as a primary parasite from larvae of *Ametastegia glabrata* (Fallen) by Mr. E. J. Newcomer at Wenatchee, Washington. It is extremely variable in respect to the presence and extent of the white color of the face. One male is very like a male compared with the type by Mr. S. A. Rohwer and said by him to differ from the type only in being somewhat smaller and having on the face a white instead of a piceous spot. In these two specimens the mandibles, palpi, clypeus, a facial spot, and the tegulae are white or whitish. Among the other males, of which there are nine, is exhibited variation in both directions. In the darkest form only the mandibles, clypeus, and tegulae are white. In those of the other extreme the white embraces the palpi, mandibles, the whole face below the antennae, the cheeks, a spot on the lower side of the scape, the front and middle coxae and trochanters, the tegulae, and a small humeral spot, and the front edge of the pronotum shows a tendency toward this color. In the females only the palpi, mandibles, tegulae, and an incomplete antennal annulus embracing more or less of two segments display the white color, and at the dark end of the series it is replaced even there by black or piceous. In all specimens the wing bases are white.

The females are from 6.5 to 8.5 mm. long and the males 5.5 to 8.5 mm. The ovipositor varies slightly in length, averaging somewhat more than half as long as the abdomen.

Very few of the specimens exhibit the infuscation at the apex of the hind femur, and marked variation occurs in the form of the propodeal areas and the strength of the carinae.

Genus BATHYTHRIX Foerster (Howard).

Only two North American species have been referred to this genus. These are *B. meteori* Howard, the genotype, and *B. pimplae* Howard. It is worthy of note that both of these species have the clypeus apically with two nipple-like teeth. In the genotype these structures are widely separated and the clypeus between is deeply impressed, while in *pimplae* they are close together and the clypeus is not impressed. In the Japanese *B. kuwanae* Viereck, which is apparently properly placed in this genus, the clypeus lacks both teeth and impression. The new species described below has the teeth, but lacks the impression. In the new species the clypeal vestiture is less conspicuous than indicated in Foerster's characterization of the genus, and this character must be considered of doubtful generic value.

Key to North American Species.

General color blackish and rufous; tergites 2 to 4 longitudinally aciculate at base; clypeus impressed in apical middle, the impression flanked on either side by a nipple-like tooth, the teeth widely separated; hind tibiae uniformly rufous; ovipositor less than half as long as abdomen. *meteori* Howard.
Black; tergites 2 to 4 not aciculate at base; clypeus not apically impressed, the two teeth very close together or wanting..... 1.

1. Clypeus without a protruding brush of long hairs, the hairs appressed; mandibles, scape below, and tegulae whitish; nervulus slightly antefurcal; first tergite in profile decurved and increasing gradually in thickness from base to apex, the dorsal carinae rather weak, becoming obsolete far from the apex; hind tibiae, tarsi, and second joint of trochanters black; ovipositor three-fourths as long as abdomen..... *tibialis*, new species.

Clypeus with a protruding brush of long hairs arising near base; mandibles and tegulae reddish piccous, scape immaculate below; first tergite in profile thickest at spiracles, the dorsal carinae strong and reaching nearly to apex, *pimplae* Howard.

BATHYTHRIX TIBIALIS, new species.

Female.—Length, 7 mm.; ovipositor, 3 mm. Head polished, impunctate; face, cheeks, and malar space clothed with long, dense, silvery pubescence, vertex and frons bare, clypeus bare except for a few appressed hairs at base, its apex with two minute nipple-like teeth placed close together; ocelli arranged in an approximately equilateral triangle; malar space slightly less than twice as long as basal width of mandibles; scape globose. Thorax polished, impunctate, clothed like the head, the propodeum completely and distinctly areolated, the areas practically smooth; nervellus broken far below the middle and slightly antefurcal; second intercubitus subobsolete.

Abdomen subpolished, clothed with very short shining pubescence; first tergite slender, evenly decurved, its spiracles in the middle, the dorsal carinae comparatively weak and becoming obsolete far from the apex; ovipositor about three-fourths as long as abdomen.

Black; mandibles and scape below, tegulae, humeral spot, front coxae, and front and middle trochanters yellowish to whitish; hind tibiae and tarsi and apical joint of hind trochanters blackish; legs otherwise stramineous to testaceous, the pale color in front; wings hyaline; veins and stigma dark, the latter pale at apex.

Male.—Aside from sexual differences, very like the female and differing principally in the paler color of the mandibles, tegulae, and spot on the scape and the greater extent of the last.

Host.—*Ametastegia glabrata* (Fallén). Probably secondary.

Type-locality.—Wenatchee, Washington.

Type.—Cat. No. 20772, U.S.N.M.

Described from four females reared by E. J. Newcomer, Bureau of Entomology, April 12, 11, and 14, 1915, the type and paratype *a* and *b* (Quaintance No. 11422), and May 12, 1916, paratype *c* (Quaintance No. 14020), and one male labeled Vancouver, 2234, Coll. C. F. Baker.

Allied to *pimplae* Howard, but easily distinguished by the characters made use of in the key.

Genus AENOPLEX Förster.

The following key includes those North American species that have been referred to this genus and one new species described herewith. It is very likely that a number of other species described in the genus *Hemiteles* should be referred here.

- Mesoscutum opaque, minutely granulate, at most obscurely punctate in male... 1.
 Mesoscutum polished or subopaque with distinct punctures..... 2.
1. Propodeum with areola less than half as wide at base as at apex.
betulaecola Ashmead.
- Propodeum with areola about two-thirds as wide at base as at apex.
plesiotypus Cushman.
2. Mesoscutum subopaque, finely punctured; abdomen entirely black; ovipositor nearly as long as abdomen..... *nigrosoma*, new species.
 Mesoscutum highly polished; abdomen usually more or less red (frequently entirely black in male); ovipositor not nearly as long as abdomen..... 3.
3. Propodeum strongly rugose, the rugosity partially obscuring the carinae, the petiolar area deeply excavated; coxae black. (Known only from male type.) (Alaska)..... *rufipes* Ashmead.
- Propodeum weakly sculptured, the carinae distinct, the petiolar area flat; coxae red 4.
4. Propodeum nearly perpendicular behind, areola distinctly wider than long; abdomen red except petiole, smooth; flagellum pale brown at base; legs very stout. (Known only from female type.)..... *argeae* Viereck.
- Propodeum steeply declivous behind, areola about as long as wide; abdomen red only in middle, frequently (especially in male) entirely black, more or less coriaceous; flagellum entirely black; legs moderate..... *carpocapsae* Cushman.

AENOPLEX PLESIOTYPUS Cushman.

By recent rearings the range of this species is extended to include Wenatchee, Washington, and Vienna, Virginia, the former record by Mr. E. J. Newcomer and the latter by the present writer. All of the new specimens, two males and a female from Washington and one male from Virginia, are from the type host, *Carpocapsae pomonella*. The only character employed in the original description to distinguish *plesiotypus* from *betulaecola* Ashmead that holds in the light of these new specimens is the form of the areola, and it is doubtful if the two are really distinct species. One hesitates, however, to synonymize the two because of biological differences, *betulaecola* having been reared only as a gregarious parasite of a noctuid, *Apatla betulae*, and *plesiotypus* only solitarily from the tortricid, *Carpocapsa pomonella*. In *plesiotypus* the temples are slightly less strongly rounded and the ocelli slightly smaller than in *betulaecola*, though both of these characters show some variation.

The male differs from the female principally in its somewhat coarser sculpture, narrower first tergite with stronger dorsal carinae, stouter tapering flagellum, and in having the scape beneath, the front and middle coxae, and all the trochanters white to stramineous; one has the hind coxae piceous above.

AENOPLEX NIGROSOMA, new species.

Female.—Length, 7.5 mm.; antennae, 4.5 mm.; ovipositor, 3.5 mm.

Head swollen, granularly subopaque, minutely but distinctly punctured; temples rounded, slightly sloping; cheeks strongly rounded; malar space shorter than basal width of mandibles; antennae but little more than half as long as body, 24-jointed. Thorax dorsally sculptured like the head, laterally polished, longitudinally striato-punctate; notauli rather weak; propodeum transversely striate, rounded above, nearly perpendicular behind, carinae strong, strongly mucronate at upper hind angles, areola about as long as wide, half as wide at base as at apex, petiolar area somewhat concave; legs rather slender, the inner spur of hind tibia barely one-third as long as basitarsus. Abdomen about one-third longer than head and thorax, three basal tergites granularly opaque, apical tergites polished; first tergite nearly four times as wide at apex as at base, the dorsal carinae strong and extending nearly to the apex; ovipositor nearly as long as abdomen.

Black; mandibles piceous, maxillary palpi black at base, with three apical joints pale; legs reddish testaceous, front pair slightly the palest, hind tibiae at apex and their tarsi infuscate; wings iridescent, very slightly brownish stained, veins and stigma dark brown, wingbase white.

Male.—Length, 5.5 mm.; antennae, 3 mm.

Very like the female, the principal difference consisting in the relatively narrower propodeal areas and tergites, the areola being distinctly longer than wide and the first tergite less than three times as wide at apex as at base, the slightly paler legs, and entirely hyaline wings.

Host.—*Ametastegia glabrata* (Fallén).

Type-locality.—Wenatchee, Washington.

Type.—Cat. No. 20774, U.S.N.M.

The type series consists of five females and one male, reared by Mr. E. J. Newcomer, of the Bureau of Entomology, during April, 1915 (Quaintance No. 11422), and May, 1916 (Quaintance Nos. 14017 and 14021). The paratypes, all females, exhibit variation in size down to 4.5 mm., with the legs paler, the ovipositor relatively longer, and the sculpture of head and thorax weaker.

AENOPLEX CARPOCAPSAE Cushman.

Since the publication of this species several more specimens have been reared, including a number of males. All but one are from the type-locality and type host, the exception being a male reared March 31, 1913, at Dewitt, Georgia, from *Enarmonia caryana*, under Quaintance No. 9178.

The male differs from the female principally in the relatively narrower propodeal areas and abdomen, in having the mandibles, coxae, and trochanters paler, and all but one have a distinct pale spot on the scape. The abdomen is in every case entirely black, except for the narrow whitish margins of the apical tergites.

Genus SPILOCRYPTUS Thoms.

SPILOCRYPTUS POLYCHROSIDIS, new species.

Female.—Length, 5.5 mm.; antennae, 4 mm.; ovipositor, 0.8 mm.

Head polished, face and lower orbits granularly opaque; vertex declivous behind the ocelli, the occipital carina subangulate medially; temples strongly rounded; clypeus prominent, with a few rather long hairs; cheeks flat; malar space about as long as basal width of mandibles; antennae slender, flagellum slightly thicker at apex than at base, first joint about four times as long as thick, distinctly longer than the second. Thorax opaque, minutely punctate above and distinctly striate laterally; notauli distinct, meeting before the posterior margin; propodeum opaque, declivous behind, with two complete transverse carinae; legs slender; wings large, areolet rather small, its sides convergent, radial cell short, reaching barely half way to apex of wing, nervellus postfurcal, broken below the middle. Abdomen about a third longer than head and thorax, broadest at apex of third tergite, minutely densely punctate, polished and im-

punctate toward apex; first tergite rather slender, twice as wide at apex as at base, the spiracles protuberant, situated at about the apical two-fifths; ovipositor about one-third as long as abdomen.

Head black with clypeus and mandibles reddish; antennae black, with a few basal joints reddish piceous below and an incomplete white annulus embracing the dorsal surface of flagellar joints five to nine. Thorax ferruginous with a tendency to piceous above, especially on pronotum and in the alar region; legs reddish testaceous, with a tendency to piceous on the coxae, especially the front pair, front and middle trochanters whitish, hind tibiae fuscous, with an indistinct whitish basal annulus, their tarsi fuscous with the second joint entirely and the first at base white; tegulae white; wings hyaline, veins and stigma pale brown. Abdomen ferruginous with tergites beyond fourth black and with an indication of the apical white spot characteristic of the genus.

Male.—Length, 5 mm.; antennae, 5 mm.

Structurally but little different from the female; antennae as long as body, more uniform in diameter, slightly attenuate near apex, articulation less distinct; abdomen more slender throughout. Mandibles, clypeus, and an elongate spot in lower anterior orbits white; antennae intense black except for pale lower surface of scape and the white annulus, which is complete, but embraces only four segments (ninth to thirteenth). Thorax black with scutellum, propodeum, and part of mesopleura and metapleura ferruginous; legs similarly though more contrastingly colored, the white embracing both the second and third hind tarsal joints. Abdomen without a trace of the white apical spot, and with the fourth tergite partly blackish and the fifth partly reddish.

Host.—*Polychrosis viteana* Clemens.

Type-locality.—North East, Pennsylvania.

Type.—Cat. No. 20775, U.S.N.M.

A considerable series of both sexes is at hand reared by the writer and his associate, Mr. Dwight Isely, from pupae of the grape-berry moth under Quaintance No. 11016. These show marked variations in color. In the darkest female specimen (paratype *a*) the head and thorax are entirely black, except for a slightly paler color about the mouth, the hind coxae and trochanters are black, all the tergites beyond the third are black and the first three are black at the base, and the flagellar annulus embraces only four joints, but the hind tibia and tarsi show almost no trace of the contrasting color pattern. In paratype *b* both head and thorax, including even the mouth, are black, but the abdomen and legs are as in the type. The palest female specimen (paratype *c*) has head and thorax entirely red with practically no trace of infuscation, but is otherwise very typical. The other female paratypes show the encroachment of the dark color in varying degrees.

The male paratypes display as much and similar variation. The clypeus, scape, lower orbits, and scutellum vary from white to piceous or black, but the general body color does not determine the color of these parts. Paratype *i*, for instance, is otherwise very similar to the allotype, but all of these parts are especially pale, the white embracing in addition the cheeks and a spot above the clypeus. Paratype *k*, on the other hand, which is not otherwise darker than the type, has the entire face black, the scape and scutellum piceous, the clypeus piceous with a minute yellowish spot, and the mandibles stramineous. In none of the specimens is the thorax entirely black nor entirely red, the allotype displaying nearly the maximum of black and paratype *l*, in which the mesoscutum is dark fuscous, the maximum of red. In the latter specimen the white of the hind tarsi embraces also the fourth joint and on the left leg the black of the first joint is only faintly indicated.

This species has also been reared from the same host at Put-in-Bay, Ohio, under Quaintance No. 14433, by Mr. E. R. Selkregg, of the Bureau of Entomology.

Genus CAENOCRYPTUS Thomson.

No specimen of either of the species originally included in this genus by Thomson is available for study, but the species described below runs here in the tables (of both Ashmead and Thomson) to the tribe Cryptini. Both of these tables are difficult to use with certainty because of the variability of the characters and the large numbers of comparative words employed. The present species possesses most of the characters which Thomson says "usually," "not rarely," or "frequently" exist as well as the very few characters which he states positively.

CAENOCRYPTUS NEWCOMERI, new species.

Female.—Length, 9 mm.; antennae, 7 mm.; ovipositor, 2 mm.

Head transverse, roundly sloping behind the eyes, punctate, strongly so in middle of face and frons, cheeks subpolished, clothed with short, dense, appressed, inconspicuous pubescence; malar space shorter than basal width of mandible; clypeus sparsely punctate and with rather long hairs at base, apical half polished, without hairs or punctures, with short median tooth flanked on either side by a transverse impression; antennae slender, the flagellum slightly thicker toward apex than at base, first joint of flagellum slightly longer than second, about five times as long as wide at apex. Thorax clothed like the head; pronotum laterally striate; mesoscutum and scutellum punctate, notauli strong, subfoveate; meso- and metapleura and propodeum densely, strongly, more or less reticulately punctate; propodeum with both transverse carinae strong, the apical carina especially so at the

hind angles, the basal median area complete, the pleural carinae weak; legs slender, front tibiae slightly swollen, hind tarsi longer than their tibiae by about the length of the last joint, first joint fully as long as the next three together, last longer than third, middle and hind tibiae with scattered spines, each set in a rather large puncture; areolet pentagonal, complete, its sides convergent, lower outer angle of second discoidal cell right, nervellus postfurcal, broken slightly below the middle, abdomen longer than head and thorax, first tergite two and one-half times as wide at apex as at base, minutely shagreened dorsally, strongly carinate laterally from base to apex and dorsally from base to spiracles, the latter situated at about the posterior two-fifths; tergites 2 to 4 densely, minutely punctate, the rest subpolished; ovipositor scarcely half as long as abdomen, stout.

Black, with first three and part of fourth abdominal segments and the legs (mostly) ferruginous, front coxae in front, front and middle trochanters above and hind tibiae and tarsi more or less infuscate, the tarsi, except last joint, much paler than the tibiae; wings hyaline, veins and stigma brown, the latter with a small white spot at base; antennae with an incomplete white annulus on seventh and eighth flagellar joints.

Male.—Length, 10 mm.; antennae, 8 mm.

Differs from female as follows: Temples more strongly rounded; pubescence of head and thorax paler and more conspicuous, propodeal carinae weaker; front tibiae not swollen; abdomen more slender, first tergite barely one and one-half times as wide at apex as at base; antennae without annulus; mandibles, palpi, spot on clypeus, lower anterior orbits, tegulae, a small spot below, spot on scutellum, front and middle trochanters, third and fourth joints and apical half of second joint of hind tarsi white; front coxae black in front; red color of abdomen embracing first five segments.

Host.—*Ametastegia glabrata* (Fallén).

Type-locality.—Wenatchee, Washington.

Type.—Cat. No. 20776, U.S.N.M.

A large series shows variation in size among females from 9 to 5.5 mm. and among males from 10 to 5 mm. The red color varies from ferruginous to pale testaceous, the paler color generally found in the smaller specimen. In some specimens the coxae are all red, while in others the front coxae are entirely black. The extent of the infuscation in the hind tibiae is also very variable. In some specimens the white annulus includes portions of the sixth and ninth flagellar joints, while in others it is confined mostly to one joint, the eighth. The white of the hind tarsi of the male is frequently entirely confined to the third and fourth joints. The front coxae in the male vary from almost entirely black to almost entirely red and the trochanters are frequently entirely red.

The entire series was reared under Quaintance Nos. 11,423, 14010, 14014, and 14016 by Mr. E. J. Newcomer, of the Bureau of Entomology, for whom the species is named.

Genus *CHAERETYMMA* Foerster.

Only one North American species has been referred to this genus. This is *C. ashmeadii* Harrington. The new species described below is not closely allied to *ashmeadii* and should, perhaps, not be placed in the present genus, but it is rather closely allied to *anatorius* Gravonhorst, which Schmiedeknecht refers to *Chaeretymma*.

CHAERETYMMA MINUTA, new species.

Female.—Length, 4.5 mm.; antennae, 3 mm.; ovipositor, 2 mm.

Head swollen, polished, impunctate except minutely on face, temples rounded, sloping; malar space slightly longer than basal width of mandible; cheeks slightly convex; clypeus broadly rounded at the apex, with a transverse impression just before the apex; scapo attenuate toward base, first joint scarcely twice as long as thick, the joints decreasing gradually in length and increasing in thickness toward apex. Thorax polished, nearly impunctate above, laterally with pronotum striate, mesopleura punctate, metapleura granular; propodeum granular above, irregularly striate behind, incompletely areolated, the entire dorsal area bounded by the lateral and apical carinae being noncarinate, apical carina rather prominent at upper angles; nervellus broken very close to submediella. Abdomen equal in length to head and thorax; first three tergites granularly opaque except at apices, their apices and remaining tergites polished; first tergite about three times as wide at apex as at base, dorsal carinae weakly developed at base, obsolete beyond middle; ovipositor very nearly as long as abdomen.

Black; mandibles, clypeus, palpi, and antennae piceous, the last without a white annulus; legs testaceous, hind tibiae at apex and their tarsi fuscous; wings hyaline, veins and stigma dark brown.

Male.—Length, 6 mm.; antennae, 4 mm.

Differs from female as follows: Antennae tapering, the joints less distinct; tergites narrower, the first barely twice as wide at apex as at base; antennae intensely black, the scape with a whitish spot below; face except a triangular spot with its base at the antennae, whitish as are also the cheeks, mandibles, palpi, tegulae, and front coxae and trochanters in front; hind tibiae and tarsi darker than in female; hind coxae and trochanters with dark spot above.

Host.—*Ametastegia glabrata* (Fallén).

Type-locality.—Wenatchee, Washington.

Type.—Cat. No. 20777, U.S.N.M.

Described from one specimen from each sex reared by Mr. E. J. Newcomer, the type, May 22, 1915, under Quaintance No. 11422 and the allotype May 25, 1916, under Quaintance No. 14018.

SCAMBUS EPHIALTOIDES, new species.

In its long, slender form and remarkably long ovipositor this species is suggestive of the genus *Ichneumon* (= *Ephialtes*). It also resembles more closely than does any described North American species the genotype, *Scambus sagax* Hartig.

Female.—Length, 9 mm.; antennae, 5 mm. (the antennae of the type are broken, the antennal measurement being taken from a paratype female of the same size); ovipositor, 9 mm.

Head polished, impunctate, very thick antero-posteriorly, with the temples nearly as broad as the eyes and very strongly rounded to the weak occipital carina; eyes large, slightly converging toward the clypeus and very slightly emarginate opposite the antennae; post-ocellar and ocell-ocular lines equal and slightly greater than the diameter of a lateral ocellus; face short, elevated medially; clypeus short, medially impressed, and with a deep triangular emargination, malar space very short, cheeks strongly convex. Thorax slender, sub-cylindrical, polished, weakly punctate, pronotum and mesopleura impunctate; notauli strong anteriorly but soon obliterated, prescutum gibbous; propodeum with sparse suberased punctures, the carinae extending nearly to the apex; radius originating before middle of stigma, nervellus broken close to brachiella and very strongly ante-furcal; legs slender, the hind coxae in their greatest width barely two-thirds as wide as long. Abdomen slender, more than one and a half times as long as head and thorax together; first tergite very small, at its apex scarcely half as wide as apex of second; tergites 2-5 strongly punctured except for their polished apices, others obscurely roughened; ovipositor slender, compressed, as long as body.

Black; clypeus entirely and mandibles toward their apices piceous; palpi pale fuscous; antennae black, scape at apex and pedicel outwardly piceous; wings hyaline with brownish stain, veins and stigma brown, except costa and metacarpus, which are whitish, tegulae white, stramineous at apices; hind legs with coxae black, basal joint of trochanter piceous at base, second joint and apex of first whitish, femur reddish testaceous, tibia fuscous with a paler basal annulus and elongate spot above at middle, tarsus fuscous with an obscure paler annulus at base of first joint; other legs with same color pattern, but with the colors paler and less contrasting, especially in the front legs, where the black becomes piceous and the fuscous pale testaceous to stramineous.

Male.—Length, 7 mm.; antennae, 4 mm.

Differs from female principally as follows: Head even longer antero-posteriorly, malar space nearly obliterated; front femur

deeply impressed below, the tibia strongly curved and flattened below so that when the two are brought together a large opening is left; abdomen more slender, first tergite twice as long as wide at apex and equal in length to second, which, as naturally folded, is parallel-sided; palpi and pedicel white; wings clear hyaline; hind tibia mostly piceous; front and middle legs except coxae stramineous to white; front and middle coxae white at apices.

Host.—*Evetria siskiyouana*.

Type-locality.—Colestin, Oregon.

Other localities.—Corlett, Montana; Crescent City, California; Siskiyou, Oregon; Ashland, Oregon.

Type.—Cat. No. 20778, U.S.N.M.

The single paratype female (paratype *a*) is very like the type with the leg color somewhat darker. The five paratype males exhibit considerable variation both in size and sculpture. The largest is 7.5 mm. long and the smallest 5 mm. Paratypes *b* and *c* are very like the allotype; *d* has the pedicel piceous and the hind femur with a large reddish spot on each side; *e* has the front and middle femora piceous above, and *f* has the middle femur mostly and the tibia at apex and below piceous.

Described from the above-mentioned eight specimens, the type and allotype reared under Hopkins U. S. Nos. 12538ⁿ and 12538ⁿⁿⁿ from the type host in cones of *Abies concolor*; paratypes *a*, *b*, and *c* under Hopkins U. S. Nos. 12560^e, 13298^{hh}, and 12560^{ig}, respectively, from cones of *Abies concolor*, the first and last at Ashland and the second at Siskiyou; paratypes *d* and *f* under Hopkins U. S. No. 12557^l from cones of *Picea sitkensis* at Crescent City and paratype *e* under Hopkins U. S. No. 12509^b from cones of *Picea engelmanni* at Corlett.

ITOPLECTIS OBESUS, new species.

Female.—Length, 8 mm.; ovipositor, 1.5 mm.

Very stout, the thorax very nearly as high as long; head much narrower than thorax and set very close to the very short vertical pronotum; prescutum medially extending slightly farther cephalad than upper margin of pronotum; propodeum declivous throughout; abdomen very broad, tergites 3–5 very transverse, more than twice as wide as long; ovipositor less than one-third as long as abdomen; legs very stout, posterior femora less than three times as long as deep.

Face rounded, strongly, rather densely punctured and together with mandibles and malar space clothed with long, dense, cinereous pubescence; clypeus at base sparsely punctured, in the middle deeply impressed, the impression polished, at apex roundly truncate and with a single row of punctures; malar space only about one-third as long as basal width of mandibles; antennae inserted far above middle of eyes, the latter deeply emarginate opposite antennae; frons, occiput, and cheeks sparsely, weakly punctured, polished; ocelli large and

close to each other, postocellar line equal to diameter of posterior ocelli and twice as great as ocell-ocular line.

Pronotum polished; mesoscutum as wide as long, densely though weakly punctured, with very short, fine, whitish pubescence, and with practically no trace of notauli; mesopleura and mesonotum sculptured and clothed about as mesoscutum except in region of punctiform fovea, where it is highly polished and without vestiture, the fovea very deep; metapleura polished, almost without sculpture or vestiture; propodeum laterally with dense punctuation and vestiture, medially and posteriorly polished and without vestiture, the longitudinal carinae very short, divergent and widely separated at base; spiracles large, oval, about two-thirds as wide as long; legs very stout, front tibiae much shorter than their femora, front claws toothed at base.

Abdomen finely, very densely punctured and clothed with very short whitish pubescence; first tergite about as wide as long, dorsal carinae weak except at extreme base, anterior declivity embracing two-thirds of total dorsal length; other tergites, especially second and third, with apical impression and lateral elevations well developed; terminal tergites subpolished and weakly punctate; ovipositor short, stout, the sheath with very short, dense, black pubescence.

Black, with legs largely red, apices of tergites 2-4 very narrowly dark piceous; humeral spot, wing bases, and tegulae white, the latter brown at apex; antennae black, slightly paler at extreme apex; labial palpi black, labial palpi blackish at base; wings hyaline, veins and stigma blackish, the latter pale at apex and base; front coxae black except at apex, hind femora black at apex, hind tibiae black with a white annulus in about the second fourth, their tarsi black, the first three joints white at base, front and middle tibiae and tarsi with same color pattern but less distinct, the black being replaced by ferruginous on the middle legs and by stramineous on the front legs, except that the basal annulus of the middle tibia is black.

Male.—Length, 6 mm.

Differs from female as follows: Less stout, the thorax considerably longer than wide, malar space somewhat longer; all coxae black, hind pair pale only at apex, middle and front pair pale at apex and in front; all palpi white.

The single paratype female is very like the type.

Host.—Type and paratype from fruit-tree leaf-roller. Allotype from bud-moth.

Type-locality.—Wenatchee, Washington.

Type.—Cat. No. 20779, U.S.N.M.

Described from the above-mentioned two females and one male reared from pupae of the hosts June 17 (paratype), June 19 (type), and July 9 (allotype) by E. J. Newcomer, under Quaintance Nos. 11436 and 11440.

The closest described American relative of this species is *I. behrensi* (Cresson), but it is much more closely allied to the European *I. alternans* (Gravonhorst), from which it can be distinguished only by the darker antennae, wing veins, and stigma.

GLYPTA EVETRIAE, new species.

Female.—Length, 8 mm.; antennae, 6 mm.; ovipositor, 6 mm.

In Cresson's table to the species of *Glypta* this species runs to *varipes* Cresson. Compared to a homotype (Rohwer) of *varipes* differs as follows: Temples as broad as eyes, not sloping inward; malar space narrower than basal width of mandibles; eyes distinctly shorter than width of face; cheeks in front view very strongly rounded below eyes; clypeal suture straight in middle; antennae shorter, black, not paler toward apex; labial palpi and first and second joints of maxillary palpi blackish; propodeum with costulae entirely obsolete, posterior face slightly longer than dorsal face; abdomen stouter, first tergite about as wide at apex as long; wing veins and stigma blackish; legs dark ferruginous, hind tibiae with basal dark annulus incomplete, their tarsal joints more narrowly white at base.

Male.—Length, 7 mm.; antennae, 6 mm.

Differs from female principally in having the front legs paler and hind coxae, trochanters, and femora infuscate above.

Host.—*Evetria taxifoliella* Busck.

Type-locality.—Ashland, Oregon.

Other locality.—Missoula, Montana.

Type.—Cat. No. 20780, U.S.N.M.

Described from five females and four males reared from the host in cones of *Pseudotsuga taxifolia* at the type-locality under Hopkins U. S. No. 13209ba, these being part of a large series. The paratypes *a-d*, female, and *e-g*, male, exhibit variations from the types principally in size and depth of leg color.